

REMARKS

This Amendment is responsive to the Office Action mailed March 27, 2008. By this Amendment, Applicants amend claims 1 and 3 and add new claim 19. Claims 1, 3, 5-6, 12, and 18-19 are pending. Claims 6 and 18 are withdrawn.

Reconsideration and withdrawal of the rejections made in the above-referenced Office Action are respectfully requested in view of the following amendments and remarks. Support for the amendments as filed can be found in the specification and claims as filed, e.g., page 9, lines 7-8 and 22-25; and page 13, lines 25-27. The amendment includes no new matter.

Addition of Claim 19: Applicants submit that new claim 19, added without the deletion of any other claims, does not raise any new issues regarding search and examination. Claim 19 mirrors claim 3, differing only in the encompassed range of insulating film thickness. Applicants respectfully request that the Examiner call the undersigned should the Examiner find the entry this amendment raises any new issues.

Telephone Interview

Applicants thank Examiner Lee for the telephonic interview on May 28, 2008, and the courtesies extended to Applicants' representatives. During the telephone interview, Applicants' representatives, Stephen Roylance and Walter Schlapkohl, discussed with the Examiner the outstanding claim objections and the outstanding rejections under 35 U.S.C. § 112, second paragraph. Any arguments presented to the Examiner during the interview in favor of patentability are restated herein. Applicants' representatives further note that the Examiner's interview summary mailed June 4, 2008 indicates that Applicants' will properly amend claims or provide persuasive written arguments to keep the original claim language. In response,

Applicants submit that the instant amendment is not made in acquiescence to the propriety of any of the rejections or assertions made in the Office Action dated March 27, 2008.

Claim Objections

The Office Action objects to claims 1 and 3 for formalities regarding the recitation of “said epitaxial layer” versus “said silicon epitaxial layer,” and regarding the recitation of “said active layer wafer” versus “said active layer silicon wafer.”

In response, Applicants have amended claims 1 and 3 as suggested by the Examiner.

Claim Rejections – 35 U.S.C. § 112, Second Paragraph

The Office Action rejects claims 1 and 3 under 35 U.S.C. § 112, second paragraph, as allegedly indefinite for recitation of ranges with no upper limit. In particular, the Office Action asserts that recitation of “having a concentration of 5×10^{18} atoms/cm³ or greater” in claim 1 at line 3; “at a temperature of 1,000°C or higher” in claim 1 at line 19; “for a duration of one hour or longer” in claim 1 at line 18; and “is 0.3 μm or thicker” in claim 3 at line 2, does not “meet the description requirement” and causes the claims to read on embodiments outside of ranges specified in the application at page 9, line 8; page 13, lines 25-26; page 13, lines 26-27; and page 9, lines 23-25.

In response, and without acquiescing to the propriety of the rejection under 35 U.S.C. § 112, second paragraph, Applicants respectfully submit that the amendment addresses the instant rejection and respectfully request withdrawal of the same. In particular, Applicants have amended claim 1 to recite “[a] method for producing a bonded wafer, comprising:

growing a silicon epitaxial layer comprising boron having a concentration of 8×10^{18} atoms/cm³ to 2×10^{19} atoms/cm³ on an active layer silicon wafer;

forming an insulating film in a surface of said silicon epitaxial layer;

following said insulating film formation, ion-implanting a light element into said silicon epitaxial layer at a predetermined depth to thereby form an ion-implanted area therein;

following said ion implantation, bonding said active layer silicon wafer and a supporting wafer together with said insulating film interposed therebetween to thereby form a bonded wafer;

heat treating said bonded wafer to cause bubbles of light element to be generated in said ion-implanted area and thereby a part of said active layer silicon wafer to be cleaved and separated at the site of said predetermined depth for forming an active layer; and

after said insulating layer formation on said active layer silicon wafer or said cleavage of the part of said active layer silicon wafer, performing an annealing treatment on said active layer silicon wafer or bonded wafer at a temperature of $1,100^{\circ}\text{C}$ to $1,200^{\circ}\text{C}$ and for a duration of one hour to four hours in a reducing gas atmosphere comprising hydrogen gas.”

In addition, Applicants have amended claim 3 to recite “[a] method for producing a bonded wafer in accordance with claim 1, in which a thickness of said silicon epitaxial layer is $0.5\text{ }\mu\text{m}$ to $1.5\text{ }\mu\text{m}$ ” and added new claim 19, which recites “[a] method for producing a bonded wafer in accordance with claim 1, in which a thickness of said silicon epitaxial layer is $1\text{ }\mu\text{m}$ to $2\text{ }\mu\text{m}$.”

Accordingly, Applicants respectfully respectfully request withdrawal of the rejections under 35 U.S.C. § 112, second paragraph.

Allowable Subject Matter

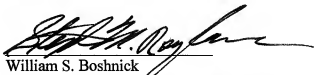
Applicants thank the Examiner for indication of allowable subject matter. Applicants submit that the instant Amendment is fully responsive and raises no new issues regarding search and examination. Accordingly, Applicants respectfully request allowance of the pending claims.

CONCLUSION

In view of the foregoing amendments and remarks, the Examiner is respectfully requested to reconsider and withdraw the rejections of record, and allow each of the pending claims. Applicants therefore respectfully requests that an early indication of allowance of the application be indicated by the mailing of the Notices of Allowance and Allowability.

Should the Examiner have any questions regarding this application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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